IN THE SPECIFICATION:

Please replace the following sections entitled, the Brief Description of the Drawings and Detailed Description of Preferred Embodiments, as follows:

BRIEF DESCRIPTION OF THE DRAWING:

In the drawings,

[0020] FIG. 1 is a cross-sectional side view of a house containing a dehumidification system according to a preferred embodiment of the present invention;

[0021] FIG. 2 is a top view of the crawl space of a house containing a dehumidification system according to the preferred embodiment of the present invention;

[0022] FIG. 3 is a front view of a user interface unit of a dehumidification system according to the preferred embodiment of the present invention;

[0023] FIG. 4 is schematic view of the component parts of a dehumidification system according to the preferred embodiment of the present invention;

[0024] FIG. 5 is a cross-sectional side view of a boat containing a dehumidification system according to the preferred embodiment of the present invention; and

[0025] FIG. 6 is a perspective view of an RV containing a dehumidification system according to the preferred embodiment of the present invention.

DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENTS:

~~[0025]~~ [0026] The present invention is a dehumidification system **10** for use in interior or enclosed spaces. As illustrated in FIGS. 1 and 2, the dehumidification system **10** includes a dehumidifier **12** that is connected to a plurality of fans **14** and a user interface unit **16**. The system **10** is operated by a controller **20** that can be included either within the vicinity dehumidifier **12** or the user interface unit **16**. Although the dehumidification system **10** is shown to be located within a crawl space **22** or basement of a house **24**, it is contemplated by the present invention that the dehumidification system **10** can be used within any area of the house **24**, as well as other enclosed areas, such as storage sheds, RVs, and boats.

~~[0026]~~ [0027] A feature of the present invention is the user interface **16**, which can be used to operate the dehumidification system from remote locations. As illustrated in FIG. 3, the user interface **16** can be located within the main portion of the house **24** and be electrically wired, or have a wireless connection, to the dehumidifier **12** that is in the crawl space **22** of the house **24**. Preferably, the

user interface unit **16** includes a power input **30** for manually turning the system **10** on or off and a means for selecting a desired humidity **32** by which a user can incrementally adjust up and down the desired humidity of the area in which the dehumidifier **12** is located. The user interface unit **16** further includes a display **34** showing the current temperature and relative humidity of the area containing the dehumidifier, as well as the desired relative humidity, that has been set by the user. Finally, the user interface **16** can include a service light **35** that indicates when the system **10** needs maintenance or repair.

~~[0027]~~ [0028] As shown, all the components of the dehumidification system **10** can be electrically wired and can obtain power by plugging the dehumidifier into a GFI (ground fault interrupter) outlet. Alternatively, the dehumidification system **10** can be operated by remote control, wherein a transmitting device capable of transmitting signals, such as radio or microwave, communicates with a receiver so as to turn the dehumidifier **12** on or off. Therefore, the system **10** can be completely automated through these connections.

~~[0028]~~ [0029] The dehumidifier **12** can include any conventional arrangement. A typical dehumidifier removes moisture from the air by condensing the moisture from the air on its cooled evaporator coils. In the present invention, the condensed moisture can be collected in a retainer beneath the dehumidifier **12**, and as shown in FIGS. 1 and 2, the condensation can drain into a pipe **40** that is routed to the exterior of the interior or enclosed space. Although a variety of

dimensions are suitable for the dehumidifier **12** depending on the particular location needing to be dehumidified, the dehumidifier **12** is preferably less then 20 inches if the dehumidifier **12** is to go into the basement or crawl space of a house. Further, the dehumidifier **12** can be permanently installed next the wall of an interior space needing to be dehumidified.

~~[0029]~~ [0030] A particular feature of the present invention is the use of the dehumidifier **12** in combination with the plurality of fans **14** that are advantageously positioned around the area needing to be dehumidified. Through the use of plural fans positioned in various locations around the dehumidifier **12**, the moist air can be more effectively dried. Further, the fans contribute to the improvement of the environment of the interior space by circulating dried and fresh air. Preferably, the fans will pull less than or approximately 2 Amps of energy. However, more powerful fans are contemplated by the present invention.

~~[0030]~~ [0031] A schematic view of how the various components of the dehumidification system **10** operate is shown in FIG. 4. As illustrated, the user interface unit **16** includes an input section **42**, including the power input **30** and the selecting means **32**, in which a user can program the desired humidity by increasing or decreasing the humidity displayed on display **34**. The user changes the desired humidity using a stepper motor **44** that allows the desired

humidity to be changed in increments by sending signals to a desired humidity indicator **46**.

~~[0031]~~ [0032] The programmed or pre-selected desired humidity is compared with the relative ambient humidity, which is measured by a humidity sensor **50**. The humidity sensor **50** can use any instrument for measuring atmospheric humidity, such as a hygrometer, and a thermometer **52**, because relative humidity is temperature sensitive. The humidity sensor **50** measures the actual humidity of the area in which the dehumidifier **12** has been placed. The relative humidity is also displayed on the user interface unit **16**. In operation, the desired humidity and the actual humidity are compared by a first comparator **56**. If the relative humidity is greater than desired humidity, then the dehumidifier **12** and the plurality of fans **14** are turned on, and if the relative humidity is less than the desired humidity **12**, then the dehumidifier **12** and the plurality of fans **14** are turned off. Because the dehumidification system **10** is completely automated, a user need simply program a desired humidity and the system will thereafter operate itself to maintain this desired humidity. In an alternative embodiment, each fan of the plurality of fans **14** can include a relative humidity sensor and a desired humidity indicator so that the fans can turn on independently of the system **10** and prevent the entire system **10** failing in the case one of the fans malfunctions.

~~[0032]~~ [0033] As previously discussed, the dehumidification system **10** can also include a wood moisture sensor **60** that is used in combination with a humidity sensor **50**. Although the system **10** need only contain one of these indicators, the use of a combination of indicators contributes to the prevention of moisture damage of the interior spaces containing the system **10**. If the moisture content is too high in the wood of the interior space, dehumidifier **12** is started. However, if only the moisture content of the air is too high, rather than the wood, then the dehumidifier **12** will still be turned on. As with the humidity sensor **50**, the actual wood moisture measured by the wood moisture sensor **60** is compared by a second comparator **64** to a pre-selected desired wood moisture, which is selected by a means for selecting a desired wood moisture **62**, and depending on whether the actual wood moisture is higher or lower than the desired wood moisture, the dehumidifier **12** and the plurality of fans **14** are turned on or off. If the wood moisture sensor **60** and the humidity sensor **50** are used in combination, the system **10** preferably includes an "or" gate **70**, wherein the information of the first comparator **56** and the information of the second comparator **64** is sampled by a clock **72** so that the dehumidifier **12** and the plurality of fans **14** will be turned on if either the humidity or the wood moisture require it.

~~[0033]~~ [0034] The controller **20** of the system **10** can contain the sensor and indicator components, as illustrated in FIG. 4. However, it is also contemplated

that the sensor and indicator components are removed from the controller **20** so that the controller need not remain in the vicinity of the dehumidifier **12**.

~~[0034]~~ [0035] The clock **72** of the system **10**, in addition to driving the repetition of comparisons of humidity at short intervals, also indicates on the display **34** through the service light **35** a need for a maintenance or check up of the system **10** based on an preset maintenance intervals. Further, the service light **35** can also indicate that the system **10** is somehow malfunctioning and needs to be repaired. The service light **35** is advantageous because it serves a warning to the user of the system **10**. Therefore, the lifespan of the dehumidification system **10** can be prolonged, and its function enhanced.

[0036] In an alternative embodiment, the dehumidification system is connected to a centrally located alarm system (not shown), similar to a burglar alarm system. Each component of the system 10 would be monitored by the alarm system so that if any one component or a combination of components malfunctioned, the alarm system would be triggered, and those monitoring the system would initiate repair.

[0037] Figure 5 represents the dehumidification system **10** of the present invention in use in a boat **80**. In particular, the dehumidification system can be used in the state rooms or the engine room of the boat **80**. Another area to benefit from the use of the system **10** is in an RV **90**, as illustrated in FIG. 6.

Both of these vehicles include many enclosed areas that may be susceptible to moisture damage. Although the system **10** in FIGS. 5 and 6 is shown to include the plurality of fans **14**, it is contemplated that the system **10** would not be required in these areas, or other small areas.

[0038] A feature of the present invention is the use of a dehumidification system **10** in interior or enclosed spaces. Accordingly, any area that tends to become musty and mildewed is suitable for the dehumidification system **10**. Not only will the use of a dehumidification system **10** in these areas reduce and prevent the musty odor caused by potential mildew, but also the materials used in these areas can be better preserved.

[0039] Finally, there are many alternative embodiments and modifications of the present invention that are intended to be included within the spirit and scope of the following claims.